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AUTHOR Gonzalez-Suarez, Mirta; Ekstrom, Ruth B.
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ABSTRACT

Seven representative elementary school textbooks used in the United States were examined, as part of an international study of sex-stereotyping in textbooks, to determine whether the depiction of males and females was qualitatively and quantitatively sex-equitable. The analysis used a gender models checklist developed by M. Gonzalez-Suarez (1986) to examine textbooks in Costa Rica. The checklist uses 45 gender models subdivided into 12 categories. Content coding was done separately by two persons. The most recent editions of reading textbooks for the pre-primer through the sixth-grade level were obtained from four major publishing companies: Addison-Wesley; Houghton-Mifflin; Macmillan; and Scott-Foresman. One book was selected at random across the publishers for the seven grade levels. Out of the 4,665 models coded, 2,960 were masculine and 1,705 were feminine. Males were present more often in the text, at 64%, than in the illustrations, at 61%. Males were most likely to be depicted in occupational roles or as historical figures. Females were most likely to be depicted in a way that emphasized their personality characteristics. When results were compared to those of a study over a decade ago, some efforts to remove sex bias were apparent, with females engaging in a wide range of occupations and displaying a wide range of personality traits. Males, although shown engaged in housework and as being affectionate with children, were rarely shown in traditionally female occupations. Four tables present study findings. (SLD)

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Are U.S. Elementary School Reading Textbooks Sex Stereotyped?

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Mirta González-Suárez
University of Costa Rica

and

Ruth B. Ekstrom
Educational Testing Service

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The goal of this project was to examine representative elementary school reading textbooks used in the United States to determine if the depiction of females and males was sex-equitable, both quantitatively and qualitatively.

Perspective

This project is part of a larger international study analyzing sex stereotypes in textbooks. It builds on previous work done in Costa Rica (González-Suárez, 1986, 1987), in the United States (Frasher, 1972; Taylor, 1973; Stacey, Bereaud & Daniels, 1974; Weitzman & Rizzo, 1975; Women on Words and Images, 1975; Scott, 1981; Sheridan, 1982; Britton & Lumpkin, 1977 and 1983; Ogren, 1985; and Garrity, 1987) and in other countries (Cristóbal, 1980; Instituto de la Mujer, 1985; and Meiot, 1985).

The early studies of U.S. textbooks found male characters predominated. They also found women were shown primarily in traditionally female occupations and such as teacher, nurse, or mother. Such evidence of sexism in school texts highlighted the pressing need for revision, a process which was begun with the elaboration of guidelines by a number of U.S. publishing houses (e.g., Scott-Foresman, 1972; Holt, Rinehart & Winston, 1975). However, implementation of these guidelines was seen by some as resulting primarily in cosmetic changes in textbook content (Britton and Lumpkin, 1977). Some research since that time has concluded that recent textbooks are less sexist (Sheridan, 1982) but other research has noted that the increase in non-sexist portrayals is not statistically significant (Garrity, 1987) and that there has been little progress in the role models offered (Britton & Lumpkin, 1983).

The United States is not alone in its concern with sex stereotyping in textbooks. Analyses sponsored by UNESCO of textbooks in Arab countries, the People's Republic of China, Norway and Kenya show that, despite different customs and sociopolitical conditions, few women are present in textbooks in these countries and those women shown are engaged primarily in traditionally female and passive activities (Fitzpatrick, 1986). In Spain, research by the Instituto de la Mujer [Institute for Women] (1986) showed that males were 74 percent of all figures in that country's General Basic Education texts. Similar results were obtained by González-Suárez (1986)

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in an analysis of 28 Costa Rican textbooks, showing males were 72 percent of the characters. Both the Spanish and Costa Rican studies found the percentage of females depicted in textbooks decreased with grade level. In addition to this quantitative change, there is also a change in textbook content affecting the portrayal of females and males. For males, there is an increase in material about work activities and social functions outside the family unit. For females, however, new alternatives are not presented and women's work options are confined largely to the home. This division of activities by sex explains, in large part, the reduced number of females in upper grade textbooks where themes outside of the home are highlighted.

Because students spend a large portion of their school time using textbooks, it is important that these books present a balanced picture of the society. Textbooks provide students with models of behavior in family life, school and the larger world. From their textbooks, students develop beliefs about appropriate roles for adult females and males. When textbooks present a stereotyped view of adult roles young people may grow up believing that these are the only appropriate options for them.

The types of bias in instructional materials fall into a variety of types, which have been described by Hulme (1988) include: invisibility, or the under-representation of certain groups; stereotyping, or assigning rigid roles or attributes to a group; inbalance/selectivity, or perpetuating bias by presenting only one interpretation of an issue, situation or group of people; unreality, or presenting an inaccurate view of history and life experiences; fragmentation/isolation, or separating issues relating to women and minorities from the main body of the text; and linguistic bias, or the use of terms such as the generic "he". Sexism is only one form of textbook bias; other forms include racism, handicapism, agism, elitism, and ethnocentrism.

Schau and Scott (1984) define sex biased educational materials as those in which:

- o females appear as main characters and in illustrations far less frequently than do males;
- o females and males usually are portrayed in sex-stereotypical roles;
- o females appear more often than do males in derogatory roles; and/or
- o male generic language is used.

These authors define sex-fair materials as those which include females and males in numbers proportional to reality and include both traditional and non-traditional sex roles. While sex biased materials distort pupils' perceptions of reality while sex-fair materials:

- o Broaden attitudes about gender roles;
- o Influence pupils' gender-role behaviors; and
- o Increase motivation to learn (Scott and Schau, 1985).

The position that textbooks are behavior models for students has its foundation in work by Bandura (1965, 1967) which has shown how models reinforce the acquisition of imitative responses. Exposure to sex-equitable materials results in more flexible sex-role attitudes for both males and females (Scott and Schau, 1984). Sex role identification and selective attention to same-sex models develops in the pre-school years (Slaby & Frey, 1985). Because of this selective attention, inequitable gender balance in textbooks may also affect student interest and motivation to learn. In a study of fifth grade students, Bleakley, Westerberg, and Hopkins (1988) found a strong interaction between the sex of the reader and the sex of the main character on a measure of interest in what was read. While no interaction between sex of the main character and reading comprehension was found in this study and other research, such interactions have been found in the content of reading achievement tests. Donlon, Ekstrom and Lockheed (1979) reported a significant tendency for females to do relatively better on test items which contained more female references.

Methods and Techniques

The analysis used a gender models checklist originally developed by González-Suárez to examine school textbooks in Costa Rica (1986, 1987). The gender models in this check list are, in turn, derived from research about women's roles in Latin American countries (González-Suárez, 1977, Alonso et al., 1982). The checklist includes 45 gender models, subdivided into 12 categories. These are:

I. Stereotypical female occupations, such as secretary, nurse or teacher;

II. Other occupations (both traditionally masculine and sex-neutral), such as the professions, merchants or technical workers;

III. Stereotypical female personality traits, such as being affectionate, dependent, or emotional;

IV. Stereotypical masculine personality traits, such as being aggressive, intelligent, and strong;

V. Stereotypical female roles within the family, such as providing child care or doing domestic tasks and shopping;

VI. Stereotypical male roles within the family, such as being the provider or doing home repairs;

VII. Participating in games, such a playing with doll's houses or with toy cars;

VIII. Participating in sports, such as playing ball or swimming;

IX. Participating in artistic activities, such as music or drawing;

X. Taking a role as a leader;

XI. Historical figures; and

XII. Aristocratic figures (such as kings, queens, etc.)

All references to humans and pictures of human figures in the textbooks were counted and categorized as masculine, feminine or generic. (The generic category, which is not included in these data, was used for masculine forms of reference, such as the generic "he" which could also be considered as referring to women.) Both text and pictures were used in this analysis.

The analysis excluded characters whose sex was ambiguous. It also excluded non-human characters such as personified animals, mythological or non-historical religious figures. The analysis also did not include the illustrations on the covers of the textbooks, text not directed to students (such as prologues and notes to the teacher), information about the authors and illustrators, indexes, glossaries, etc.

Next the qualitative dimension of the situations involving the human figures was analyzed by placing the situation in the one category that was most dominant. Context was taken into consideration in determining the most relevant category. Thus, no text or picture is included in more than one classification. For example, when an story about a historic figure was coded, only the historical category was used; neither the occupation of the historical figure nor the personal characteristics of the figure were coded. While it might have been desirable to use an analysis system that allowed for coding of multiple dimensions of a character, the decision was made to use with the González-Suárez system so that comparisons could be made between the content of the U.S. textbooks and the content of elementary reading textbooks already studied in other countries.

In the case of continuing or repeated descriptions of characters, one classification was used for each page of text or for each time a character was shown in an illustration.

Coding of the content was done independently by two persons. The inter-rater reliability was .92.

Data Source

The most recent editions of reading textbooks for the pre-primer though sixth grade level were obtained from four major publishing companies (Addison-Wesley, Houghton-Mifflin, Macmillan, and Scott-Foresman). A book was selected, at random, across the four publishers for each of the seven levels. Consequently, the study results are not necessarily representative of all U.S. elementary level reading textbooks. While it would have been desirable to analyze all texts at all levels from all four publishers, the amount of time required to do such an analysis made this impractical.

Results

Quantitative Analysis.

The summary results, combining the analyses for all seven textbooks, are shown in Table 1. Out of the 4665 models coded, 2960 (63.5 percent) are masculine and 1705 (36.5 percent) are feminine. Males were present somewhat more often in the text (64 percent male) than in the illustrations (61 percent male). These percentages are affected by differences in length among the textbooks (The longer, upper grade texts are slightly more male dominated than the shorter, lower grade texts.). If adjusted data is used, with proportions within each textbook rather than the total number of models as the unit of analysis, males would be 60.9 percent of the characters in these books and females 39.1 percent. Since there is very little difference between the unadjusted and adjusted percentages, we have used the unadjusted data throughout this report.

The proportion of all male and all female characters placed in each of the 12 categories is shown in Table 2. Males were most likely to be depicted in an occupational role (23.7 percent of all male models) or as a historical figure (23.3 percent). Females were most likely to be presented in ways that emphasized their personality characteristics (31.6 percent of all female models).

The proportion of male and female models within each of the 12 categories is shown in Table 3. The coding categories in which female models were emphasized include female occupations (82.7 percent of all individuals in this category), female personality traits (60.2 percent), and female family roles (59.1 percent). Males, in contrast, were found most often as historical figures (83.5 percent of all individuals in this category), as leaders (73.1 percent), and as involved in sports (70.9 percent).

Chi-square analysis showed the category differences in the portrayals of the sexes to be significant beyond the .0001 level.

Occupational Depictions. Approximately 23 percent of all characterizations in these texts emphasized the occupation of the characters (coded in categories I and II). Within the occupational categories, only five percent of the depictions showed men in traditionally female occupations. In contrast, 55 percent of the females in situations where occupation was stressed were shown engaging in either traditionally male or sex-neutral occupations. The sex differences in occupational portrayal are significant beyond the .001 level.

Teaching was the occupation shown most frequently in these textbooks. Females were portrayed as teachers ten time more often than males.

Personality Portrayals. Approximately 24 percent of all depictions in these textbooks emphasized the personality of the characters (Coding categories III and IV). Very different personality characteristics were

ascribed to each sex. Within the personality categories, only 13 percent of the males were described as having personality traits stereotypical associated with females (being dependent, affectionate, etc.) In contrast, 78 percent of the females were depicted as displaying personality traits stereotypical associated with males (being aggressive, protective, etc.). The differences in the portrayal of personality are significant at the .01 level.

Being intelligent was the most frequently portrayed personal characteristic. Females were described in this manner slightly more often than males (28 percent of all personality descriptions for females versus 22 percent for males).

Family Roles and Activities. Approximately 13 percent of the portrayals stressed individuals' family activities and roles (Coding categories V and VI). The family roles and activities also differed somewhat for males and females. Slightly more than half (54 percent) of the models in these categories showed males involved in traditionally masculine roles, most often homeowner or provider. Males were described as homeowners six times as often as females. About two thirds of the family portrayals of females showed them in traditionally female roles. Females were shown involved in child care near twice as often as males. Chi square analysis showed differences in the type of family roles presented for females and males significant at the .01 level.

In discussing family roles, it should be noted that, when males were shown doing traditionally female domestic tasks (e.g., cooking or child care), they were often portrayed as doing these incompetently or ineffectively. The coding system did not pick up the quality of role or occupational behavior; these will be discussed later in the qualitative portion of the analysis.

Recreational Activities. Fourteen percent of the portrayals in these textbooks emphasized the characters' involvement in recreational activities, such as games, sports, or the arts (Coding categories VII, VIII and IX). As was the case with previous topics, there were considerable differences in the kinds of activities undertaken by females and males. Nearly half (46 percent) of the recreational activities of males involved participating in sports, but the sports category accounted for only 34 percent of the recreational activities of females. About 13 percent of the recreational activities of males and 11 percent of the recreational activities of females involved games. About 41 percent of the recreational activities of males involved in artistic activities, most often playing a musical instrument or singing (males were shown in musical activities about fives times as often as females); the arts accounted for approximately 55 percent of females recreational activities. Despite these differences, the chi square analysis did not reach a level of statistical significance when comparing the recreational activities of the females and males in these texts.

Variations by Grade Level. Table 4 shows the proportion of male and female models in the textbooks at each grade level. At no grade level was

there a balanced sex ratio or a predominance of females over males. The proportion of females in these texts tends to decrease with grade level, going from 47 percent in the pre-primer to 25 percent in the sixth grade reader. However, there appears to be considerable variation from text to text. For example, the grade 3 book is 69 percent male while the grade 5 book is 54 percent male. Consequently, the increase in male characters by grade level does not reach statistical significance.

The number of historical figures increases greatly with grade level, while the number of aristocratic figures decreases with grade level.

Racial/Ethnic Content. The textbooks appeared to be sensitive to issues of racial/ethnic bias. In the situations where race/ethnicity could be coded, either from text or pictures, approximately 31 percent of the characters portrayed were members of minority groups (7 percent Asian-American, 17 percent Black, 4 percent Hispanic, and 3 percent Native American). Representation of minority females and males is, essentially, balanced (51 percent male, 49 percent female) White females, however, are under-represented (58 percent of the white characters are male, 42 percent female).

Since it is possible to code race/ethnicity only when it is commented upon in the text or is obvious from the illustrations, it was impossible to determine the race/ethnicity of the characters in slightly more than half (53 percent) of the models.

Qualitative Analysis

Counting the number of males and females in elementary school reading textbooks is informative, but it presents only a partial picture of how females and males are depicted in these materials. To obtain a deeper and richer sense of the books, qualitative analysis is necessary.

When one compares the current U.S. textbooks with earlier ones, it is clear that there has been an effort to avoid sex stereotyping. Females are depicted in more varied occupations; they are now shown as actresses, astronauts, detectives, explorers, guards, librarians, etc. In terms of personality, the women and girls in these textbooks are active, brave, kind, talented, critical, nervous, creative, independent, lonely, obedient, dirty, stubborn, practical and thoughtful.

Males are now shown in ways previously restricted to females, such as showing affection, especially toward children, and sharing family activities such as housework. In terms of personality, the men and boys in these books now display a wide range of characteristics -- curious, kind, helpful, rude, worried, proud, patient, impulsive, disobedient, untidy, etc. Some male models, especially young boys, are shown crying, something exclusively related to females in earlier textbooks.

In the presentation of family activities, males are now helping with housework. However, as noted earlier, they are either doing tasks which have been traditionally associated with the males, such as carrying out

trash, or they are shown doing female tasks incompetently. One story from the fourth grade reader is a typical presentation of a family which has "separate spheres" for its male and female members.

> "As they entered the kitchen, Mama said, 'I'm glad you're home, boys. Walter, we need more wood for the stove. Marshall, please get me a bucket of water from the well. Supper is nearly ready.'.
>
> Big sister Pearl stirred a huge pot of stew on the iron cookstove. Geneva popped a pan of biscuits into the oven. Carlton carried the eighth chair to the table. Ruth cuddled the baby in her arms as they went back and forth in the rocking chair. ..."

This continuing linkage between women - mother - domestic tasks is one of the most important stereotypes that must be address in order to achieve greater social integration of women in the labor force and a greater participation of men in household and child care activities.

One of the most serious problems in these textbooks occurs in their presentation of historical material. The sixth grade reader, which was the most unbalanced in content of all the texts examined, presents an example of this. The main focus of this text is the Middle Ages in western Europe. One story describes the life of knights -- males, of course -- their education and interests in life. When the time to mention females arrives, we read "Inside the keep , women occupied themselves with spinning, weaving, and embroidery. It helped the time to pass more quickly." Thus, women's work is described as a pastime! Most of the main characters in this text are males, such as Robin Hood, El Cid, and St. George, although some females are included as companions. In some stories the women are shown as brave and strong as men, such as the case of Maid Marian when she goes, dressed as a man, to search for Robin Hood. Still, the dominant pattern of behavior is masculine and the women are integrated into this peripherally.

In these textbooks we still find beauty stressed in descriptions of females. In one story in the sixth grade text we read "Beside him sat a strikingly pretty girl of about sixteen. She was blushing up a storm and had her eyes cast down at her lap, where she was twisting a long white scarf." and, in another story in the same book, "The lady's lovely face was veiled...".

As was noted earlier, about a third of the characters in these textbooks are members of racial/ethnic minorities. This multi-cultural emphasis is perhaps most evident in the third grade textbook which describes the efforts and cultural backgrounds of different groups. Blacks, Hispanics, Asian Americans and Whites are all shown in a positive way. However, most stories are male centered with women being, in most cases, a valuable support at home. Household tasks are divided with women doing the cooking while men provide the food. In one story, the husband decides all that is to be done while the rest of the family carries out the work.

Females and males from a variety of socioeconomic levels are present in these texts. Even though extreme poverty and richness are not shown, the texts include positive models of individuals of different social status. For example, in the pre-primer, the girl's mother has a broken, old car and they live in a poor neighborhood. The fourth grade text describes the feelings of shame a girl has living in a poor apartment building and how she learns by herself to face the situation.

These textbooks are also an improvement on earlier materials in presenting material about older people and about people with disabilities. Traditionally, textbooks referred mainly to children and middle age adults, with grandparents being the only older people portrayed. In the books examined in this research, there were more stories showing older, non-relative adults relating very closely to children. One story in the third grade textbook told about the concern of a whole community for an old woman living alone in an apartment building and the stories that a girl tells a blind older woman. The message is that children can and should help their elders, and this is a rewarding experience for both parties. Devices to help the disabled, such as hearing aids and wheel chairs, are now present in most textbooks and are not shown as obstacles to full participation in society.

One of the most delightful parts of these textbooks are satires on the classical stories of "Prince Charming" saving women from various dangers. In the second grade textbook, a princess decides to change the situation; she becomes a friend of the dragon. In the fifth grade book, the princess decides to go out herself to look for her prince. The common theme in these stories is to make fun of traditional fairy tales. In most cases the princesses do not agree with the old-fashioned rules and choose other alternatives. However, there is still the usual happy ending with a merry wedding and "they all lived happily ever after." Although fantasies are charming, they may have dominated elementary reading texts in the past. These textbooks, with their relatively low number of female aristocratic figures are a definite improvement over the situation described by Britton and Lumpkin (1977) which found that readers of elementary school materials were more likely to encounter female fantasy figures, such as princesses and witches, than they were to encounter real women working at real jobs.

There is a notable increase in the textbooks in the use of inclusive language and terms which cover both females and males. However, there are still phrases that could be improved, such as "The farmer and his family" in the grade 4 text. In other cases the texts hint at prescribed sex roles, even when the character described is not conforming to them. For example, in the sixth grade reader there is the comment about an author -- "after she married she continued to write."

This qualitative analysis points up some of the weaknesses of a strictly quantitative approach to analyzing textbook content. Few, if any, coding schemes can dealing with satires or with derogatory depictions, such as discussed above.

Conclusions and Educational Significance

Reading textbooks in the US still present a male-dominated scene. While the imbalance appears to have been reduced somewhat since Women on Words and Images made a similar analysis over a decade ago and found that 71 percent of stories centered around males, males are over 80 percent of the historical figures in these textbook and over 75 percent of workers in sex-neutral or traditionally masculine occupations.

There is, however, evidence of efforts to remove sex-bias in these texts. Females are shown engaged in a wide range of occupations and displaying a wide range of personality traits. Males are shown engaged in housework and as being affectionate with children. Females are shown in sex-neutral or traditionally masculine occupations approximately half of the time, suggesting considerable effort on the part of publishers to indicate that a wide range of occupations are appropriate for women.

In these textbooks, males are rarely shown in traditionally female occupations. This suggests that publishers may be less comfortable in portraying males in non-traditional roles than they are in having non-traditional portrayals of females. This hypothesis receives further support from the fact that males are rarely shown displaying more feminine personality traits such as affection with peers (adult males are, however, shown as affectionate with young children). In addition, when males are shown involved in traditional female activities in the home, they are often shown doing them incompetently. In short, male stereotyping may have received less attention in these textbooks than stereotyping of females.

This research has also pointed out the need for better ways of analyzing textbook content. It is difficult to make comparisons among existing studies because of different methodologies and different units of analysis. It is unclear whether it would be preferable to have the entire textbook or each story within a textbook as the analysis unit. If each story is used, should data be averaged across stories or adjusted according to the length of each story?

Another major question involves the nature of the coding system. Ogren (1985) has demonstrated that different results are obtained using Smith's numberial comparison approach and using Garcia and Woodrick's quantitative and qualitative analysis approach. Other questions include:

> Is it better to use the González-Suárez system, coding each model/character when they are first presented and, in the case of continuing characters, re-coding every page or to code each character's characteristics only once?
>
> How many aspects of a character should be coded? In this study, the major role or activity of each model was coded. This results in a loss of information, such as in situations where a character is both a parent and a worker. Another difficulty with this method is determining which of the character's roles or personal characteristics are dominant in each coding situation. If the

story is used as the unit of analysis, an alternative approach is to code all characteristics of each individual. This system, too, has its weaknesses; for example, it does not differentiate between an individual who may display a certain personality trait only once in a story and an individual who repeatedly shows this characteristic.

One strength of the González-Suárez coding system is that it is built on a theory of sex-role stereotyping. Thus, the coding system has implicit in it the determination of whether the occupation, personality characteristic, or family role is or is not traditional female. Other systems, which lack such a theoretical basis, are often unable to make these important distinctions.

However, this system is not without its limitations. One major omission is any way of coding the relative status of the individuals in a story. This was done as part of the Donlon, Ekstrom, and Lockheed (1979) system for coding the content of achievement tests and could be readily used in coding text book content. Inclusion of status information takes the content analysis from a simple count of males and females to a better understanding of the interactions between individuals in a story (such as a school teacher and a school principal or an administrator and a secretary). Coding both status and gender helps us to see whether, when women are added to textbooks, they are shown has having less power than males, even when they are in the same occupation or activity. Coding of status is also very useful in comparing how Whites and minorities are depicted in textbooks.

Another limitation of many coding systems is their inability to handle things such as satire or derogatory presentations. This is a serious omission for, as we have seen, ineptness may be used to indicate that a role is not really appropriate for the character.

The next issue is how textbook publishers can most effectively deal with the problem of detecting sex-biased content in current textbooks or in material under consideration for textbook inclusion. As we have noted, coding the content of textbooks is a time consuming task. Alternative techniques, such as computer scanning of text, may help to overcome this problem. Recent work at ETS (Breland, 1989) has used modern text-retrieval software to obtain frequency counts of words in passages of text. Counts of words like he, she, him, her, man, woman, boy, girl, etc. can provide an indication of the probable gender balance in the material. This technique could be readily adapted to analyzing the content of any textbook and would ensure publication of books with balanced ratios of females and males.

Unfortunately, computer text analysis techniques are not yet sophisticated enough to detect sex stereotyping in texts. This still requires expert judgement. Scott and Schau (1985) have recommended that publishers sensitize their writers and all personnel so that they fully implement the guidelines already in place. Our experience in obtaining materials for this study suggests that some publishers may have, in recent years, reduced the attention given to monitoring adherence to their own guidelines. In one phone call to a publisher requesting copies of such

guidelines, we were told that "They must be around here somewhere but nobody pays attention to them anymore."

Publishers also need to become better acquainted with sources of sex-equitable materials that might be included in textbooks, especially materials in the field of history. One such source is the National Women's History Week Project in Santa Rosa, California. There are a number of nonsexist book lists (see, for example, Froschl and Williamson, 1977); one list, prepared by the Boston Area Women Librarians focusing on fictional biographies and stories of the colonial period, could help publishers locate more sex equitable stories about this part of American history. Another, more recent bibliography identifies children's books in which females have nontraditional roles (Newman, 1982).

Another option is to change the type of historical material presented in readers, by reducing the amount of material from political and economic history about "great men" and increasing the amount of material from social history which considers the roles of both sexes.

Still another option is to provide supplementary materials that help teachers address and deal with bias in existing textbooks until such a time as major revisions can be undertaken.

To summarize, this study found that, to the extent that the seven textbooks analyzed are representative of U.S. textbooks as a whole, improvements have occurred in the past decade. However, there is still an unbalanced representation of males and females. This analysis suggests that publishers' efforts to show females in a wider range of occupations and behaving in less stereotypical female ways have been effective. However, males in these textbooks still have not been freed from the sex-role stereotypes which are associated with them.

The study also raises a number of questions about methods of analyzing textbook content. It is unclear what the unit of analysis should be. Future analytical approaches should incorporate the González-Suárez sensitive to sex-role stereotypes, and should add coding components to indicate the relative status of characters and to indicate whether or not the character is being depicted in a derogatory manner.
We suggest that textbook publishers make use of computer text-retrieval software to obtain frequency counts that will indicate the likely ratio of males to females. However, computers can handle only a part of this problem. For the rest, expert judgement is needed. Publishers must take the responsibility for continuing monitoring of how well their textbooks adhere to the guidelines they have set.

Table 1

Number of Models Coded in Each Category - Summary Seven Textbooks
(Total = 4665 models)

CATEGORY	Masculine Models			Feminine Models		
	Pictures	Text	Total	Pictures	Text	Total
A. Occupations	200	501	701	99	271	370
I. Female Stereotyped	13	22	35	34	133	167
II. Sex Neutral/Male	187	479	666	65	138	203
B. Personality	121	472	593	115	423	538
III. Female Stereotyped	26	54	80	24	97	121
IV. Male Stereotyped	95	418	513	91	326	417
C. Family Activities/Roles	42	260	302	72	232	304
V. Traditionally Female	30	110	140	59	143	202
VI. Traditionally Male	12	150	162	13	89	102
D. Recreation	191	239	430	107	134	241
VII. Games	33	22	55	20	6	26
VIII. Sports	92	105	197	36	45	81
IX. Arts	66	112	178	51	83	134
X. Leaders	0	57	57	2	19	21
XI. Historical Figures	82	608	690	23	113	136
XII. Aristocratic Figures	33	154	188	15	80	95
Totals	669	2291	2960	433	1272	1705
% of all models			63.5			36.5

Table 2

Proportion of Models Coded in Each Category - by Sex
(Total = 4665 models)

	Males (n= 2960)	Females (n=1705)
A. Occupations	23.7	21.7
I. Female stereotyped	1.2	9.8
II. Male or sex-neutral	22.5	11.9
B. Personality	20.0	31.6
III. Female stereotyped	2.7	7.1
IV. Male stereotyped	17.3	24.5
C. Family Activities/Roles	10.2	17.8
V. Traditionally female	4.7	11.8
VI. Traditionally male	5.5	6.0
D. Recreation	14.5	14.1
VII. Games	1.9	1.5
VIII. Sports	6.6	4.7
IX. Arts	6.0	7.9
X. Leaders	1.9	1.2
XI. Historical	23.3	8.0
XII. Aristocratic	6.4	5.6

Table 3

Proportion of Male and Female Models - by Category

	Males	Females
A. Occupation (n=1071)	65.5	34.5
I. Female stereotyped (n=202)	17.3	82.7
II. Sex neutral or male (n= 869)	76.6	23.4
B. Personality (n=1131)	52.4	47.6
III. Female stereotyped (n=201)	39.8	60.2
IV. Male stereotyped (n=930)	55.2	44.8
C. Family Activities/Roles (n=606)	49.8	50.2
V. Traditionally female (n=342)	40.9	59.1
VI. Traditionally male (n=264)	61.4	38.6
D. Recreation (n=671)	64.1	35.9
VII. Games (n=81)	67.9	32.1
VIII. Sports (n=278)	70.9	29.1
IX. Arts (n=312)	57.1	42.9
X. Leaders (n= 78)	73.1	26.9
XI. Historical Figures (n=826)	83.5	16.5
XII. Aristocratic Figures (n=283)	66.4	33.6

Table 4

Percent of Male and Female Models by Textbook Level

	Male	Female
Pre-primer	52.7	47.3
Grade 1	56.8	43.2
Grade 2	59.9	40.1
Grade 3	69.3	30.7
Grade 4	58.7	41.3
Grade 5	54.1	45.9
Grade 6	74.6	25.4

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Are US Elementary Reading Textbooks Sex Stereotyped?

Mirta González-Suárez, University of Costa Rica[1]

and

Ruth B. Ekstrom, Educational Testing Service, Princeton, NJ 08541

ABSTRACT

As part of an international study of sex-stereotyping in textbooks, seven recently published U.S. elementary school reading textbooks were analyzed. It was anticipated that the results would show these textbooks to be more sex-balanced than U.S. textbooks of the 1970's and textbooks from other countries, in which males were more than 70 percent of the textbook characters. Gender balance has improved but, on average, males still account for more than 60 percent of the characters in these reading texts. Males are most likely to appear as historical figures or in situations that stress their occupational role. In contrast, females are most likely to appear in situations that stress their personality characteristics. Depiction of occupational roles and personality characteristics suggest that U.S. publishers have made an effort to show females doing a wide variety of work, not just the traditionally female occupations, and to show female personality in a non-stereotyped manner. However, male portrayals are more stereotyped; males are rarely shown in traditionally female occupations or displaying characteristics such as dependency or affection. We conclude that, while these readers provide more equitable examples of gender roles than was the case in the past, there are still aspects of the texts that could be improved.

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